



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/533,761 | 05/04/2005 | Roger Ian Crickmore | 05-359 | 6330 |
| 20306 | 7590 | 04/20/2007 | EXAMINER | |
| MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP | | | PIHULIC, DANIEL T | |
| 300 S. WACKER DRIVE | | | ART UNIT | PAPER NUMBER |
| 32ND FLOOR | | | 3662 | |
| CHICAGO, IL 60606 | | | | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | | DELIVERY MODE | |
| 3 MONTHS | 04/20/2007 | | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 10/533,761 | CRICKMORE ET AL. |
| Examiner | Art Unit | |
| Daniel T. Pihulic | 3662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9, 11-13, 18-23 and 25-36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) _____ is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 04 May 2005 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20050822.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) Notice of Informal Patent Application
6) Other: _____ .

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Claim 35 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.
3. Claim 23 is objected to because of the following informalities: in line 7, the term "flextensiоal" appears to be misspelled. Appropriate correction is required.
4. Claims 12 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "said mass" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "said change" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9, 11, 12, 13, 20-22, 25 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by US4951271. The US4951271 reference discloses the utilization of a vibration

sensing device comprising: a hollow flexextensional body 20 having a cross section that has a major (b) and a minor (a) axis, said flexextensional body being operable to deform in response to received vibrational energy and thereby produce a variation in a predetermined property exhibited by said body in the direction of one of said major or minor axis, said flexextensional body being shaped such that said variation in said predetermined property is amplified in the direction of the other of said major or minor axis; and a sensor (i.e. 21 or 22) coupled with the flexextensional body and operable to detect the amplified variation indicative of received vibrational energy (see Figures 1-6) as recited in claims 1 and 36.

The features of claims 2, 3, 11, 20 and 21 are shown in Figures 1 and 2.

The features of claims 4, 7, 9, 13 and 25 are shown in Figure 4.

The features of claims 5, 6, 8, 12, 22 and 23 are shown in Figures 5 and 6.

7. Claims 1-9, 11, 12, 13, 20-22, 25 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Danielson et al. The Danielson et al. reference discloses the utilization of an ellipsoidal flexextensional hydrophone as recited in the aforementioned claims (see entire document).

8. Claims 1, 18 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by US6175108. The US6175108 reference discloses the utilization of a flexextensional accelerometer (see Figures 7a & 7b) as recited in the aforementioned claims.

9. Claims 1, 11, 19, 21 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by US20010022757. The US20010022757 reference discloses the utilization of a flexextensional stain sensor (see Figures 1, 4 & 7) as recited in the aforementioned claims.

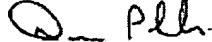
10. Claims 26, 27 and 30-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pihulic whose telephone number is 571-272-6977. The examiner can normally be reached on Monday and Wednesday through Friday from 5:30 a.m. to 4 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarca, can be reached on 571-272-6979.

The fax phone numbers for the organization where this application or proceeding is assigned are: 571-273-8300 for official responses, and
571-273-6977 for unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the telephone number 800-786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.



Daniel T. Pihulic
Primary Examiner
T.C. Art Unit 3662